

# KUMUD KUMAR

## SOFTWARE ENGINEER

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## OBJECTIVE

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Aspiring to secure a full-stack development role where I can utilize my extensive experience in backend development, database management, and front-end design to build scalable, efficient, and user-centric applications. With a focus on delivering high-quality software solutions in the energy and electricity management sector, I am eager to contribute to innovative projects that optimize operational efficiency and enhance user experience.

## SKILLS & ABILITIES

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- **Frontend Technologies:** React.js, HTML, CSS, Bootstrap, JavaScript.
- **Backend Technologies:** PHP, Node.js, Express.js.
- **Databases:** MySQL, MS SQL Server, Sequelize ORM.
- **Web Development:** RESTful API design and implementation, MVC Architecture, CRUD Operations.
- **Database Design & Optimization:** Skilled in designing scalable databases, writing optimized queries, and managing large datasets using MySQL and MS SQL Server.
- **Cloud & External Integrations:** Google Maps API, SMS and Email Services, WhatsApp Integration.
- **Data Handling & Analysis:** XML Parsing, Dynamic Data Structures, Theft Detection Algorithms.
- **Reporting & Visualization:** Data visualization using graphs, charts, and dashboards.
- **Version Control & Deployment:** GitLab, Code Reviews, Continuous Integration/Deployment (CI/CD).

## KEY STRENGTH

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- Extensive experience in **full-stack development** with a focus on backend systems for energy accounting and electricity franchise management.
- Proficient in **PHP** and **Node.js**, developing dynamic web applications and managing APIs to handle large datasets effectively.
- Skilled in **database management** using **MySQL** and **MS SQL Server**, designing scalable database structures to store, retrieve, and manage data efficiently.
- Strong capability in building **interactive dashboards, reports, and data visualizations** using **HTML, CSS, Bootstrap**, and integrating APIs like **Google Maps**.
- Expertise in integrating external services such as **SMS, email, and WhatsApp** for seamless communication and real-time notifications.
- Proven track record in **optimizing backend processes**, improving system performance, and reducing API response times through effective code refactoring.
- Strong ability to work in **agile environments**, collaborating with cross-functional teams to deliver high-quality software solutions on time.
- Adept in creating **responsive front-end designs** that deliver user-friendly experiences and align with business requirements.

## EXPERIENCE HIGHLIGHTS

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- Developed **energy accounting systems**, handling data analysis, theft detection, and reporting for electricity consumption.
- Designed and implemented a complete **electricity billing system**, distributing bills via multiple channels, geographic visualization, and optimizing backend services for improved performance.

## PROJECT

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### Energy Accounting System (TSECL, MePDCL)

**Role:** Full Stack Developer

**Technologies:** Node.js, Express.js, Sequelize ORM, MySQL, React.js, HTML, CSS, JavaScript

- Developed and maintained RESTful APIs using **Node.js** and **Express.js** to handle data retrieval and management for energy consumption reports and user interfaces.
- Utilized **Sequelize ORM** to design and manage complex database schemas, ensuring efficient data storage and retrieval from a **MySQL** backend.
- Designed and integrated various **APIs** to fetch and insert data related to energy usage, billing, and consumption patterns.
- Created reusable backend services for processing and analyzing consumption data, leading to improved efficiency in energy usage tracking.
- Worked on the **frontend** using **React.js**, implementing responsive UI components for energy consumption dashboards, including user-friendly forms, tables, charts using **HTML** and **CSS**.
- Collaborated with frontend developers to ensure seamless integration between the backend services and the user interface.
- Actively participated in agile development practices, including daily stand-ups, sprint planning, and code reviews.

### MRI Analysis System (PVVNL, DVVNL, UPCL, HPSEBL)

**Role:** Full-Stack Developer

**Technologies:** PHP, HTML, CSS, Bootstrap, Google Maps API, MS SQL Server

- Developed a robust **web portal** for reading and processing electricity meter data, received in **XML** format, from multiple sources to perform detailed analysis.
- Designed and implemented dynamic data structures in **PHP** to handle various types of electricity meters, allowing flexible and efficient data management.
- Conducted theft analysis by identifying suspicious patterns in energy consumption using data from diverse electricity meters.
- Built **interactive reports** and **dashboards** that provided in-depth insights into energy consumption, theft detection, and other metrics, using **Bootstrap** for responsive design and **HTML/CSS** for custom styling.
- Created various charts and graphs to visualize energy usage patterns, theft events, and other important data using third-party libraries, enhancing data interpretation for users.
- Optimized queries and database interactions with **MS SQL Server**, ensuring fast retrieval and processing of large volumes of meter data.
- Implemented role-based access control for secure login and data access, ensuring that only authorized users could view sensitive information.

## Electricity Franchise Management System (TSECL, MePDCL)

**Role:** Full Stack Developer

**Technologies:** PHP, HTML, CSS, Bootstrap, JavaScript, And MS SQL Server

- Developed a comprehensive **Electricity Franchise Management System** to manage consumer electricity billing, distribution, and user requests for various electricity operations.
- Designed and implemented a dynamic **billing system** in **PHP**, ensuring accurate billing for different consumer categories, usage patterns, and rates.
- Built user-friendly **front-end interfaces** using **HTML**, **CSS**, and **Bootstrap** for seamless interaction with the system, ensuring responsive and intuitive designs.
- Developed various **reports** and **progress dashboards** to visualize electricity usage, billing trends, and operational data, providing actionable insights for stakeholders.
- Handled **user requests** for new connections, disconnections, payments, load changes, and other electricity operations, integrating secure forms and workflows to manage these processes efficiently.
- Utilized **MS SQL Server** for robust data storage and management, ensuring the integrity and security of consumer data, billing records, and operational logs.
- Designed **custom dashboards** and **graphs** to monitor franchise performance, electricity usage patterns, and service requests, enabling stakeholders to make data-driven decisions.
- Worked closely with teams to ensure smooth data integration between backend services and the frontend interface, improving system reliability and user experience.
- Improved system performance by optimizing database queries and backend logic, resulting in a **25% reduction in data processing time**.

## EXPERIENCE

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October 2021 - Present	<b>SAI COMPUTERS LTD.</b> Full Stack Developer
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## EDUCATION

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2019-2021	<b>Master of Computer Applications</b> IMS, Ghaziabad
2015-2018	<b>Bachelor of Computer Applications</b> IGNOU, Delhi

## COMMUNICATION

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Strong verbal and written communication skills, enabling effective collaboration with cross-functional teams, stakeholders, and clients to gather requirements and deliver optimized solutions.

## LEADERSHIP

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- Ability to manage multiple projects simultaneously, ensuring timely delivery while maintaining high standards of quality and performance.
- Actively involved in decision-making processes related to architecture design, feature prioritization, and technical strategies to align development efforts with business objectives.
- Ability to mentor and guide junior developers, fostering an environment of continuous learning and improvement within the team.